

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for calibrating a driving signal of ~~[[a]]~~ an inkjet
5 printhead comprising:
 - (a) respectively utilizing a plurality of test driving signals for driving the printhead to
print a plurality of test patterns on a printing medium with a plurality of swaths
according to a test data, wherein the test data corresponds to at least one ideal
straight line;
 - 10 (b) selecting a test pattern with an optimal print quality from the test patterns
according to differences in quality between the printed test patterns and the ideal
straight line;
 - (c) determining an optimal driving signal corresponding to the test pattern with the
optimal print quality; and
 - 15 (d) utilizing the optimal driving signal to drive the printhead to print data.
2. (cancelled).
3. (currently amended) The method of ~~claim 2~~ claim 1 wherein each of the test driving
20 signals comprises a main printing pulse, and the main printing pulses of the test driving
signals all have the same voltage level but different pulse widths.
4. (withdrawn-currently amended) The method of ~~claim 2~~ claim 1 wherein each of the test
driving signals comprises a main printing pulse, and the main printing pulses of the test
25 driving signals all have the same pulse width but different voltage levels.
5. (withdrawn-currently amended) The method of ~~claim 2~~ claim 1 wherein each of the test

driving signals comprises a main printing pulse and a pre-heat pulse, the main printing pulses of the test driving signals all have the same pulse width, the pre-heat pulses of the test driving signals all have the same pulse width, and the main printing pulses of the test driving signals and the corresponding pre-heat pulses of the test driving signals

5 correspond to different delay times.

6. (withdrawn-currently amended) The method of ~~claim 2~~ claim 1 wherein each of the test driving signals comprises a main printing pulse and a pre-heat pulse, the main printing pulses of the test driving signals all have the same pulse width, the main printing pulses
10 of the test driving signals and the corresponding pre-heat pulses of the test driving signals correspond to the same delay time, and the pre-heat pulses of the test driving signals have different pulse widths.

7. (cancelled).

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8. (currently amended) The method of ~~claim 7~~ claim 1 wherein each of the test patterns is used to show a plurality of first color straight lines, and in step (b), the test pattern that has a minimum deviation value of the first color straight lines is selected to be the test pattern with the optimal print quality.

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9. (withdrawn-currently amended) The method of ~~claim 2~~ claim 1 wherein the test data corresponds to at least one block, and in step (b), the test pattern with the optimal print quality is selected according to uniformity of the test patterns, concentration of the test patterns, or size of ink drops within the test patterns.

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10. (withdrawn-currently amended) The method of ~~claim 2~~ claim 1 wherein the test data corresponds to a plurality of blocks with different colors, and in step (b), the test pattern with the optimal print quality is selected according to uniformity of the test patterns,

concentration of the test patterns, or size of ink drops within the test patterns.

11. (withdrawn) The method of claim 1 wherein the printhead is an inkjet printhead, and in step (a), the printhead prints the test patterns on a swath of a printing medium.

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12. (withdrawn) The method of claim 11 wherein each of the test driving signals comprises a main printing pulse, and the main printing pulses of the test driving signals all have the same voltage level but different pulse widths.

10 13. (withdrawn) The method of claim 11 wherein each of the test driving signals comprises a main printing pulse, and the main printing pulses of the test driving signals all have the same pulse width but different voltage levels.

14. (withdrawn) The method of claim 11 wherein each of the test driving signals
15 comprises a main printing pulse and a pre-heat pulse, the main printing pulses of the test driving signals all have the same pulse width, the pre-heat pulses of the test driving signals all have the same pulse width, and the main printing pulses of the test driving signals and the corresponding pre-heat pulses of the test driving signals correspond to different delay times.

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15. (withdrawn) The method of claim 11 wherein each of the test driving signals comprises a main printing pulse and a pre-heat pulse, the main printing pulses of the test driving signals all have the same pulse width, the main printing pulses of the test driving signals and the corresponding pre-heat pulses of the test driving signals correspond to the
25 same delay time, and the pre-heat pulses of the test driving signals have different pulse widths.

16. (withdrawn) The method of claim 11 wherein the test data corresponds to at least one

straight line, and in step (b), the test pattern with the optimal print quality is selected according to the deviation values between the test pattern and the straight line.

17. (withdrawn-currently amended) The method of ~~claim 2~~ claim 1 wherein test data
5 corresponds to at least one block, and in step (b), the test pattern with the optimal print quality is selected according to uniformity of the test patterns, concentration of the test patterns, or size of ink drops within the test patterns.

18. (currently amended) A printing device comprising:

10 a printhead comprising a plurality of nozzles; [[and]]

a controller electrically connected to the printhead for utilizing a ~~plurality~~ plurality of driving signals to respectively drive at least a heating resistor of the printhead to print a plurality of test patterns on a printing medium, the test pattern comprising a plurality of first color straight lines; and

15 an image-capturing module electrically connected to the controller for capturing a plurality of images corresponding to the test patterns;

wherein the ~~printing device~~ controller selects an optimal driving signal that corresponds to a test pattern having a smallest difference in quality between the first color straight lines and ideal straight lines to be the test pattern with an optimal print
20 quality, and utilizes the optimal driving signal to drive the printhead to print data.

19. (original) The printing device of claim 18 wherein the printhead is an inkjet printhead.

20-21. (cancelled).